

Title (en)
CHROMIUM-ON-SILICA CATALYSTS AND METHODS OF MAKING THE SAME

Title (de)
CHROM-AUF-SILIZIUMDIOXID-KATALYSATOREN UND VERFAHREN ZU DEREN HERSTELLUNG

Title (fr)
CATALYSEURS À BASE DE CHROME-SUR-SILICE ET LEURS PROCÉDÉS DE FABRICATION

Publication
EP 4110836 A1 20230104 (EN)

Application
EP 20717355 A 20200228

Priority
US 2020020323 W 20200228

Abstract (en)
[origin: WO2021173148A1] A composition, such as a catalyst precursor or a catalyst comprising a Cr coated silica support with particularly defined levels of Na and Al, such that the resulting Cr/Silica catalyst has an increased MI potential is disclosed. In an embodiment, the disclosed catalyst composition comprises a silica-containing substrate made using a base-set gel and comprising a catalytically active metal consisting of Cr, with Al impurities of less than 50 ppm and Na in an amount of less than 800 ppm of the catalyst composition. The disclosed composition has an increased MI potential over a catalyst having higher Al content, a lower Na:Al ratio, or both. Methods of making the disclosed composition, and methods of using it to prepare a polyethylene are also disclosed.

IPC 8 full level
C08F 10/02 (2006.01); **C08F 4/02** (2006.01); **C08F 4/24** (2006.01)

CPC (source: EP KR)
C01B 33/1546 (2013.01 - EP); **C01B 33/158** (2013.01 - EP); **C08F 4/025** (2013.01 - KR); **C08F 4/24** (2013.01 - KR);
C08F 10/02 (2013.01 - EP KR); **C08F 110/02** (2013.01 - KR); **C08F 210/14** (2013.01 - KR); **C08F 210/16** (2013.01 - KR);
C08F 2410/06 (2021.01 - EP); **C08F 2500/07** (2013.01 - KR); **C08F 2500/12** (2013.01 - KR)

C-Set (source: EP)
1. **C08F 10/02 + C08F 4/24**
2. **C08F 10/02 + C08F 4/025**
3. **C08F 110/02 + C08F 2500/07 + C08F 2500/12**
4. **C08F 210/16 + C08F 210/14 + C08F 2500/07 + C08F 2500/12**

Citation (search report)
See references of WO 2021173148A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2021173148 A1 20210902; BR 112022016830 A2 20221011; CN 115175946 A 20221011; EP 4110836 A1 20230104;
KR 20220149711 A 20221108

DOCDB simple family (application)
US 2020020323 W 20200228; BR 112022016830 A 20200228; CN 202080097612 A 20200228; EP 20717355 A 20200228;
KR 20227033632 A 20200228